

CLAIMS

What is claimed is:

- 1 1. A method for performing virtualization, comprising:
2 executing a plurality of input output (IO) instructions from an instruction stream during a
3 single virtualization event.
- 1 2. The method of Claim 1, further comprising:
2 identifying an IO instruction; and
3 scanning the instruction stream to determine whether additional IO instructions are
4 present within an extent of instructions in the instruction stream.
- 1 3. The method of Claim 2, further comprising identifying the plurality of IO instructions
2 in a block of instructions within the extent.
- 1 4. The method of Claim 3, further comprising performing a hash function on the block of
2 instructions.
- 1 5. The method of Claim 2, wherein the extent is determined by a processor running in a
2 system.
- 1 6. The method of Claim 2, wherein the extent is determined by hardware in a system.
- 1 7. The method of Claim 2, wherein the extent is determined by software in a system.
- 1 8. The method of Claim 3, wherein executing the plurality of IO instructions comprises
2 emulating the block of instructions.

1 9. The method of Claim 8, further comprising updating an instruction pointer to move
2 past the block of instructions.

1 10. A method for performing virtualization, comprising:
2 determining whether an address of an input output (IO) instruction is stored in a table;
3 determining whether a hash of a block of instructions in an instruction stream matches a
4 hash value stored in the table if the address is stored in the table; and
5 emulating the block of instructions during a single virtualization event if a match exists.

1 11. The method of Claim 10, further comprising identifying the block of instructions in
2 the instruction stream with size information in the table.

1 12. The method of Claim 10, further comprising updating an instruction pointer to move
2 past the block of instructions.

1 13. The method of Claim 10, further comprising scanning the instruction stream to
2 determine whether additional IO instructions are present within an extent of instructions in the
3 instruction stream if the address is not stored on the table.

1 14. The method of Claim 13, further comprising:
2 identifying the plurality of IO instructions in a block of instructions within the extent; and
3 emulating the block of instructions during the single virtualization event.

1 15. The method of Claim 13, further comprising emulating the IO instruction during the
2 single virtualization event if additional IO instructions are not present within the extent.

1 16. The method of Claim 14, further comprising performing a hash function on the block
2 of instructions.

1 17. The method of Claim 14, further comprising storing the address of the IO instruction
2 and a hash of the block of instructions on the table.

1 18. An article of manufacturer comprising a machine accessible medium including
2 sequences of instructions, the sequences of instructions including instructions which when
3 executed causes the machine to perform:
4 executing a plurality of input output (IO) instructions from an instruction stream during a
5 single virtualization event.

1 19. The article of manufacturer of Claim 18, further comprising instructions which when
2 executed by the machine causes the machine to perform:
3 identifying an IO instruction; and
4 scanning the instruction stream to determine whether additional IO instructions are
5 present within an extent of instructions in the instruction stream.

1 20. The article of manufacturer of Claim 19, further comprising instructions which when
2 executed by the machine causes the machine to perform identifying the plurality of IO
3 instructions in a block of instructions within the extent.

1 21. The article of manufacture of Claim 20, wherein executing the plurality of IO
2 instructions comprises emulating the block of instructions.

1 22. The article of manufacturer of Claim 20, further comprising instructions which when
2 executed by the machine causes the machine to perform updating an instruction pointer to move
3 past the block of instructions.

1 23. A virtualization event dispatcher, comprising:
2 an instruction interpreter unit to determine whether an instruction that causes a
3 virtualization event is an input output (IO) instruction; and
4 an instruction scanning unit to determine whether additional IO instructions are present
5 within an extent from the instruction in an instruction stream and to designate the additional IO
6 instructions in a block of instructions.

1 24. The virtualization event dispatcher of Claim 23, further comprising an instruction
2 pointer update unit to update an instruction pointer of a virtual machine to move past the block of
3 instructions identified by the instruction scanning unit.

1 25. The virtualization event dispatcher of Claim 23, further comprising a hashing unit to
2 perform a hash function on the block of instructions identified by the instruction scanning unit.